

### **REMARKS**

In view of the following remarks, the Examiner is respectfully requested to withdraw the rejections and allow Claims 1-3, 7-23 and 35, the only claims pending and currently under examination in this application.

Claims 1, 14 and 23 have been amended to specify that the arrays have a minimum spot density of at least about **at least about 10/cm<sup>2</sup>, support for this amendment being found on page 13, line 2 of the specification**. As the above amendments introduce no new matter to the application, their entry by the Examiner is respectfully requested.

Claims 1-3, 7, 8, 10-16 and 18-23 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Linsley et al., United States Patent No. 6,271,002 filed on October 4, 1999. In view of the enclosed Declaration by Mark Lewis demonstrating that the claimed invention was conceived and reduced to practice by the Applicants prior to October 4, 1999, this rejection may be withdrawn.

Claims 1, 7, 8, 10, 11, 14, 18-20 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Chrisey et al., United States Patent No. 5,688,642, for the asserted reason that Chrisey discloses probes spots made of probes that range in length from about 60 to about 120 nucleotides.

It is respectfully submitted that Chrisey **does not teach** an array of probes that range in length from about 60 to 120 nucleotide. Instead, Chrisey teaches at the cited Col. 8, lines 46-47 and Claim 14 that the probes may range from 4 to about 400 bases, 20 to about 150 bases, or 20 to about 100 bases. **Nowhere does Chrisey teach the specifically claimed range of 60 to 100 nucleotides.**

As such, for this reason alone, Chrisey fails to anticipate the claimed invention.

Furthermore, the disclosed Chrisey length at best "overlaps" with the claimed specific range of the presently claimed invention. Specifically, the claimed specific range of 60 to about 100 nt is a small portion of the broadly disclosed Chrisey range, in that the it falls within the more broadly claimed Chrisey range, which at its narrowest is 20 to 100 nt.

The MPEP specifically addresses the situation where overlapping ranges are present and the cited prior art fails to disclose specific examples falling within the claimed ranges. The MPEP teaches at § 2131.03:

PRIOR ART WHICH TEACHES A RANGE WITHIN, OVERLAPPING, OR TOUCHING THE CLAIMED RANGE ANTICIPATES IF THE PRIOR ART RANGE DISCLOSES THE CLAIMED RANGE WITH "SUFFICIENT SPECIFICITY"

When the prior art discloses a range which touches, overlaps or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." What constitutes a "sufficient specificity" is fact dependent. **If the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results within the claimed narrow range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims.** The unexpected results may also render the claims unobvious. The question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching.

See MPEP § 2131.02. A 35 U.S.C. 102/ 103 combination rejection is permitted if it is unclear if the reference teaches the range with "sufficient specificity." The examiner must, in this case, provide reasons for anticipation as well as a motivational statement regarding obviousness. Ex parte Lee 31 USPQ2d 1105 (Bd. Pat. App. & Inter. 1993) (expanded Board). For a discussion of the obviousness of ranges see MPEP § 2144.05. (Emphasis added)

In the present situation, the claimed narrow range of 60 to about 100 nt is within Chrisey's broad range of 20 to 100 nt. In addition, in view of the previously submitted declaration by Rule 132 Declaration of Alexander Munishkin filed with the Applicants' previous response of March 17, 2003, unexpected results are obtained with the claimed narrow range--results which cannot be obtained with Chrisey's full range (for example, 25 mers do not provide the unexpected results).

Accordingly, it is respectfully submitted that because the claimed narrow range falls within a broader range disclosed by the prior art and unexpected results have been demonstrated for the claimed narrow range, application of the above-cited MPEP section results in a finding that Chrisey does not anticipate the claimed subject matter.

Therefore, Claims 1, 7, 8, 10, 11, 14, 18-20 are not anticipated under 35 U.S.C. § 102(b) by Chrisey et al., United States Patent No. 5,688,642, and this rejection may be withdrawn.

Claims 1-23 are next rejected under 35 U.S.C. § 103 (a) as being unpatentable over Ebersole et al., U.S. Patent No. 6,037,127.

The claims are limited to methods of using microarrays, and microarrays per se, where the arrays have a minimum density of at least about 10 spots/cm<sup>2</sup>. In contrast, Ebersole is directed to bibulous test strips in which a sample flows from an application zone to a capture zone, where the capture zone has a limited number of capture agents.

As such, Ebersole is directed to a completely different type of device than the present claims, as an array as claimed in the present claims is completely different from the bibulous test strips disclosed by Ebersole. As evidence of this complete difference in the devices, nowhere in Ebersole is a structure taught or even suggested in which the probe spots have a density of at least about 10 spots/cm<sup>2</sup>.

Accordingly, Ebersole fails to teach or suggest the claimed invention. As such, Claims 1-23 are not obvious under 35 U.S.C. § 103 (a) over Ebersole et al., U.S. Patent No. 6,037,127 and this rejection may be withdrawn.

Finally, Claim 35 has been rejected under 35 U.S.C. § 103 (a) over Ebersole in view of the Stratagene catalog. As the Stratagene catalog has been cited solely for the idea of placing a reagent in a kit, it fails to make up the above-discussed deficiency in Ebersole. Accordingly, this rejection may be withdrawn.

## CONCLUSION

In view of the above remarks, this application is considered to be in good and proper form for allowance and the Examiner is respectfully requested to pass this application to issuance.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815.

Respectfully submitted,

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Date: 1.1.19.03

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- Declaration by Mark Lewis

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